

XII. A NEW TOAD OF THE GENUS EUPEMPHIX.

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(PLATE VII)

While examining the specimens of *Eupemphix pustulosus* (Cope) in the collection of the Museum of Zoology of the University of Michigan I noticed that two very distinct forms were included under this name. I have been unable to locate the type of *Paludicola pustulosa* Cope, but the published description apparently refers to the form which is most common in Panama.

I am indebted to Dr. A. G. Ruthven for permission to describe this form and to Miss Grace Eager for preparing the drawings.

***Eupemphix ruthveni*, sp. nov. (Pl. VII, fig. 1).**

Type. No. 45582, Museum of Zoölogy, University of Michigan; adult male; from Fundación, Colombia; collected Aug. 16, 1913, by Alexander G. Ruthven, at a forest pool.

Diagnosis. A large *Eupemphix* which differs from *E. pustulosus* in having a more granular belly, which is immaculate posteriorly, or marked with small, light brown spots, instead of with large, black, coalescing spots; in lacking large spots on the ventral surfaces of the femora; and in its less contrasting coloration. It differs from *E. trinitatis*, which it resembles ventrally, in having smaller warts, which are circular rather than linear, and in having a different coloration.

Description. Head small; snout protruding; nares nearly terminal; canthus rostralis rounded; eyes large, upper lids equalling the inter-orbital width; tympanum scarcely visible. A large, triangular parotoid behind the tympanum, and a small inguinal gland halfway between the axilla and the hind leg. Fingers slender, with slightly swollen tips, first as long as second; toes moderate, with rudiments of a web; faint tarsal fold present; subarticular tubercles prominent; two oval metatarsal tubercles; a small, conical tubercle on the middle of the inner edge of the tarsus. The tibio-tarsal articulation reaches the eye, and the tarso-metatarsal articulation a little beyond the tip of the snout. Upper surfaces covered with small, round warts which

become larger toward the sides; belly and ventral surfaces of the thighs granulate. A large, external vocal sac, and two brown pads on the inner side of the inner finger.

From snout to vent 30.2 mm.; femur 13.2 mm.; tibio-fibula 14.3 mm.; whole foot 20.5 mm.; length of head 9 mm.; width of head 9.3 mm.

Color (in alcohol): Gray above with a faint, light gray pectoral spot and a whitish vertebral stripe extending a short distance forward from the ischial symphysis; below, anterior half of vocal pouch black, posterior half light brown; creamy color of breast largely obscured by light brown mottlings; belly cream-colored, with a few small brown spots anteriorly, immaculate posteriorly; forelegs with dark cross-bars, but without a conspicuous light band across the elbows; hind legs with dark bars above, beneath speckled with light brown anteriorly, immaculate cream-colored posteriorly.

Notes on Paratypes. I have designated as paratypes fourteen specimens in the collection of the Museum of Zoölogy at Ann Arbor. These bear the following numbers: 45484-45488, 45579, 45580, 45583, 48196, 48200, 48201, 54586-54588. They were collected at the following localities in Colombia: between Mamatoco and La Tigrera; Minca; Santa Marta; Fundación; Don Diego; near Bolivar; and near Valencia. There are seven males in this series, which have an average length from snout to vent of 27.9 mm.; six females, which average 31.7 mm. in length; and one immature specimen. The paratypes show considerable variation in the distinctness of the pectoral spot, in dorsal coloration, and in the length of the vertebral stripe. In other respects they agree with the type.

Remarks. *E. ruthveni* is most closely related to *E. trinitatis*, although an X-ray of a single specimen of each species indicates differences in the structure of the skull which will merit further study. I believe that *E. pustulosus* is more closely related to *E. stentor* than it is to *E. ruthveni*. Both *E. pustulosus* and *E. ruthveni* occur at Fundación, Colombia, and the ranges of the two species may be found to overlap throughout large areas in northern South America.

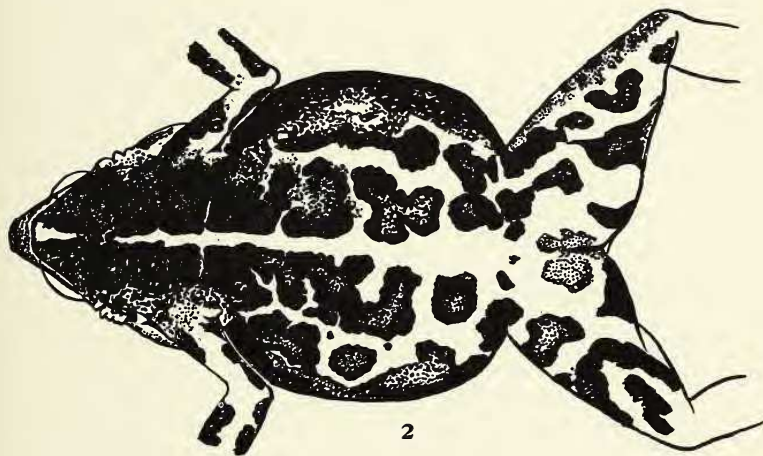
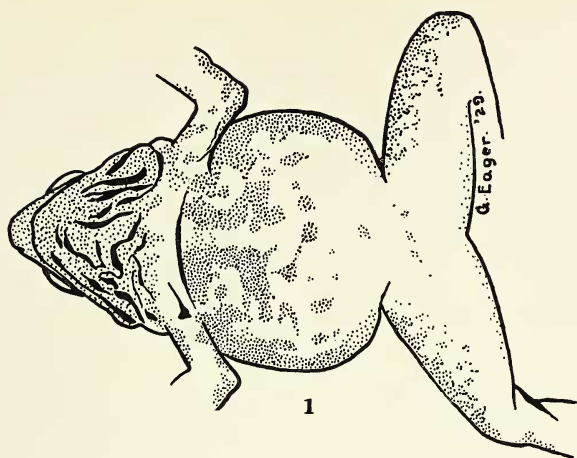


FIG. 1. *Eupemphix ruthveni* sp. nov.

Ventral surface of type, No. 45582, Mus. Zoöl., Ann Arbor (From Colombia).

FIG. 2. *Eupemphix pustulosus* (Cope).

Ventral surface of No. 63574, Mus. Zoöl., Ann Arbor (From Panama).